

Appl. No. 09/914,705
Amdt. dated December 8, 2005
Reply to Office Action of September 8, 2005

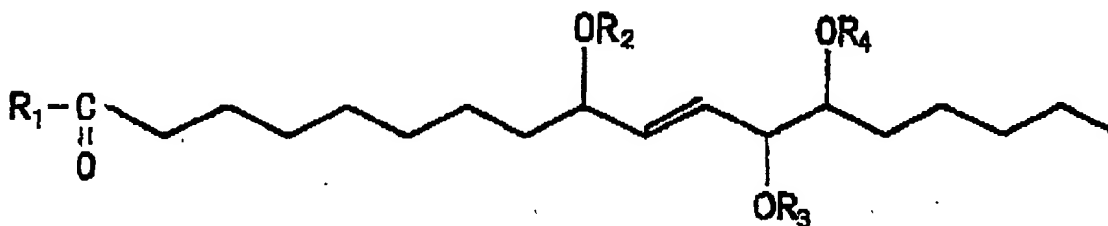
PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) An adjuvant ~~comprising~~ consisting essentially of a purified or synthesized hydroxy unsaturated fatty acid ~~or a derivative thereof~~ as an active ingredient and comprising a pharmaceutically acceptable carrier, wherein the hydroxy unsaturated fatty acid ~~or the derivative thereof~~ is an unsaturated fatty acid with 18 carbon atoms ~~or a derivative thereof~~ and the unsaturated fatty acid may be substituted at its hydroxyl group or a carbonyl group of a carboxylate moiety.
2. (Currently amended) The adjuvant of claim 1, wherein the unsaturated fatty acid with 18 carbon atoms ~~or the derivative thereof~~ has a trihydroxy-monoene structure.
3. (Currently Amended) The adjuvant of claim 2, wherein the unsaturated fatty acid with 18 carbon atoms ~~or the derivative thereof~~ that has a trihydroxy-monoene structure is 9,12,13-trihydroxy-10E-octadecenoic acid, ~~or a derivative thereof~~, of which structure is as follows:



wherein R1 is selected from the group consisting of a hydroxyl group and a substituent comprising a linkage of 1 or 2 alkyl groups or aryl groups to 1 oxygen, sulfur, or nitrogen atom; and R2, R3, and R4 are independently selected from the group consisting of hydrogen, alkyl group, and acyl group and may each be identical or different.

Appl. No. 09/914,705
Amdt, dated December 8, 2005
Reply to Office Action of September 8, 2005

PATENT

4. (Currently Amended) The adjuvant of claim 1, wherein the purified hydroxy unsaturated fatty acid is a hydroxy unsaturated fatty acid ~~or a derivative thereof~~ prepared from a medicinal plant.

5. (Withdrawn) A vaccine preparation comprising an antigen constituent and the adjuvant of claim 1 as a constituent.

6. (Withdrawn) The vaccine preparation of claim 5, wherein the adjuvant in the vaccine preparation is used in an oral inoculation independently of the antigen constituent.

7. (Withdrawn) The vaccine preparation of claim 6, wherein the antigen constituent in the vaccine preparation is used in an intranasal, subcutaneous, oral, or intramuscular inoculation or is inoculated through other mucosae.

8. (Withdrawn) The vaccine preparation of claim 5, wherein the antigen is derived from one or more pathogenic microorganisms selected from the group consisting of influenza virus, rotavirus, measles virus, rubella virus, mumps virus, AIDS virus, *Bordetella pertussis*, diphtheria bacillus, *Helicobacter pylori*, enterohaemorrhagic *Escherichia coli* (EHEC), *Chlamydia*, *Mycoplasma*, Malaria *Plasmodium*, coccidium, and schistosome.

9. (Withdrawn) A method for administering the vaccine preparation of claim 5, the method comprising orally administering the adjuvant in the vaccine preparation independently of the antigen constituent.

10. (Withdrawn) The method of claim 9, wherein the antigen constituent is inoculated intranasally, subcutaneously, orally, or intramuscularly, or through other mucosae.

11. (Withdrawn) The vaccine preparation of claim 5, wherein the adjuvant in the vaccine preparation is mixed with the antigen constituent.

12. (New) A method of enhancing the immunological activity of a vaccine, wherein the method comprises administering the adjuvant of claim 1 and a vaccine antigen.

Appl. No. 09/914,705
Amdt, dated December 8, 2005
Reply to Office Action of September 8, 2005

PATENT

13. (New) The method of claim 1, wherein the adjuvant is orally administered and the vaccine antigen is administered intranasally, subcutaneously, orally, or intramuscularly, or through other mucosae.

14. (New) The method of claim 12, wherein the vaccine antigen is derived from one or more pathogenic microorganisms selected from the group consisting of influenza virus, rotavirus, measles virus, rubella virus, mumps virus, AIDS virus, *Bordetella pertussis*, diphtheria bacillus, *Helicobacter pylori*, enterohaemorrhagic *Escherichia coli* (EHEC), *Chlamydia*, *Mycoplasma*, Malaria *Plasmodium*, coccidium, and schistosome.